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THE EGYPTIAN LILY.

The historical value of decoration has never received the attention which it deserves. To compare two or three examples together from different lands may show some part of their story, but they need a context. What we require for study is a series of wide extent, in which any new example may take its place, that the relations of it, in time and place, may be compared. With a view to beginning this, I have copied about two thousand dated and placed examples, and already several historical results of much interest have appeared.

Articles of utility may be re-invented any number of times independently, and lost to knowledge by neglect or trade opposition; this was the case with the remarkable inventions of automatic looms and saw mills before 1660 at Danzig. On the contrary, the arbitrary nature of decoration, without any urge of utility, leaves it free to be devised without any direction of the impulse. The resemblances of decoration seen in various lands have therefore great value as indicators of the movements of trade, of culture, of conquest, or of race. The comparative study of decoration gives an organized mode of research into ages which are without a record. One may illustrate the method, and its wide implications, by a study of the derivatives of the Egyptian form of the lily which show connections of countries and the continuity of art.

Beneath each of the drawings, the period is stated as EM, or MM, or LM (Early, Middle, or Late Minoan), each divided in three stages; or else the date in years is marked, — for B.C. or + for A.D.; this dating is often difficult to ascertain from the publications. The place where the design was found is quoted; and, lastly, the reference to the book source, as follows:—A.O. *Alte Orient*; A.S. Andrae and Schäfer; B.A.S. Blavignac, *Architecture Sacrée*; B.K. Blegen, *Korakou*; C.I.P. Cohn, *Indische Plastik*; D.C.O. Delaporte, *Cylindres Orientaux*; E.P.M. Evans, *Palace of Minos*; F.L.M. Furtwangler-Loescheke, *Mykenische Vasen*; F.P. own copy; G.A. Gusman, *Art Decoratif*; H.W. Hayes Ward, *Seal Cylinders*; K.B. *Kunstgesch. in Bildern*; K.M. *Kircherian Museum*; K.T. Koch, *Terrakotten camp.*; M.A.A. *Mem. Amer. Acad. Rome*; M.A.K. Montelius, *Ältere Kulturperioden*; M.I. Montelius, *Prim. Civ. Ital.*; M.S. Metz, *Frühkretische Siegel*; P.A.H. Pottier, *Art Hittite*; P.A. Petrie, *Amarna*; P.C. Perrot and Chipiez; P.I.K. Petrie, *Illahun and Kahun*; R.M.P. Renan, *Mission en Phénicie*; R.S. Riegl, *Spätröm. Kunst*; S.A. Strzygowski, *Altai-Iran*; S.A.A. *Ann. Scuola Archeol. Atena*; T.A.P. *Trans. Dep. Arch.* Pennsylvania; U.C. University College; Φ Photographs.

The lily motive seems to have originated in Crete, amid that rich appreciation of nature which surrounds all Cretan art. In the Middle Minoan III, on the great jars at Knossos (Fig. 1), and on fresco (2), the lily is triumphantly used at about 2300 B.C. The group of lilies is perhaps the noblest decoration ever devised, and the closest to nature, for the natural plant can be here taken without any artificial alterations, and simply adopted in a fitting group. In a few

centuries it was changed, and by about 1600 it was modified (4) in its form of growth, but retained the projecting pistils and the re-curved petals, which always distinguish it. The Late Helladic 5, 7, are of about the same age, and the less natural form 3, is of about 1400. The form of flower was adapted to a branching plant, 6, suggesting that it was not well known in Rhodes.

The lily in the Cretan form thus passed down to being merely a flower, at the mercy of any one who needed such to fill a space, regardless of its nature. But in Egypt it became fixed in its botanical aspect of the parts, and this permanent type went through immense changes. The most perfect example is on a glazed ring bezel, 8, from Amarna (see also *Objects of Daily Use* xii, 39). On this the detail is much more precise than on the Cretan paintings; the straight pistil, P, is made triple, and the anthers, A, are shewn below in their peculiar form; beneath are the calyx, C, and the thin spathe, S, with the withered tip dangling. This is in accord with the style of botanical detail on other Egyptian work, but it appears that though the designer knew the flower he could not include the deeply curved petals, and simplified them; the size and prominence of the stamens was what he felt to be characteristic. This was simplified in Fig. 9, which retains the up-turned anthers, a feature which lasted in transformations down to the bitter end in Catholic Italy. Figs. 10, 11, are early departures into senseless types. 12 and 14 maintain the parts, but double the anthers. 13 has the anthers and pistils, but has merged the calyx with the spathe, keeping the dried tips of the spathe as coming from the calyx. This compound form of calyx lasted on into Assyria and Cyprus. Much simplified forms are in 19 to 21.

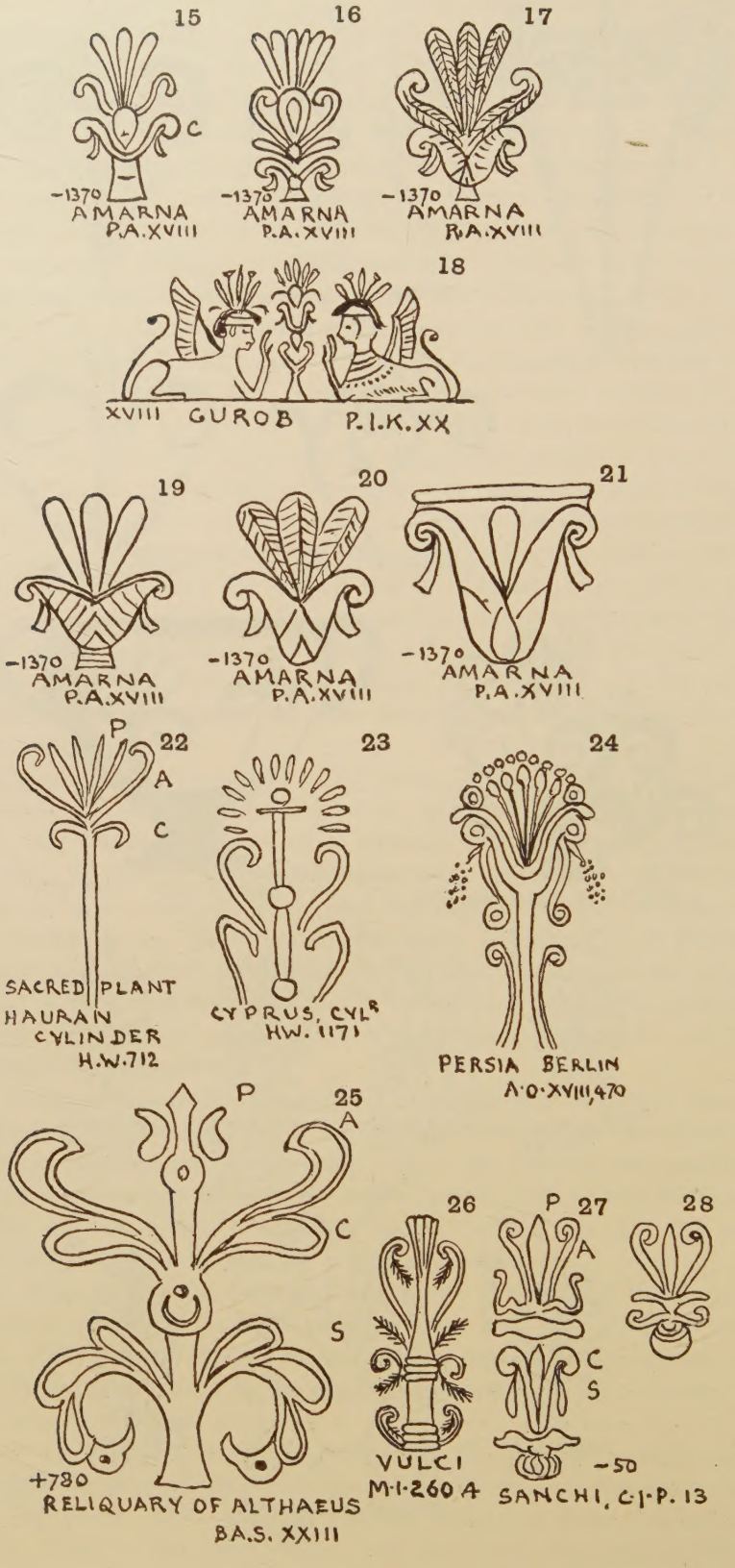
Now we pass to the changes in other lands. On a cylinder from the Hauran, 22, the different parts are maintained, but they are wildly changed on one from Cyprus, 23, where the idea of a column has come in, yet the incurved anthers remain. In Persia further changes took place (24) where the tips of the spathe became bunches of dates, and the idea of a kind of palm ruled the form. The change in 25, based on a tree form, is probably of Persian work; yet even here the original parts are visible, but the tips of the spathe have become birds' heads. An Italian form at Vulci, 26, brought in sprays, though dimly keeping the proper parts. Such a form passed to India, 27, 28, where the calyx and spathe survived.

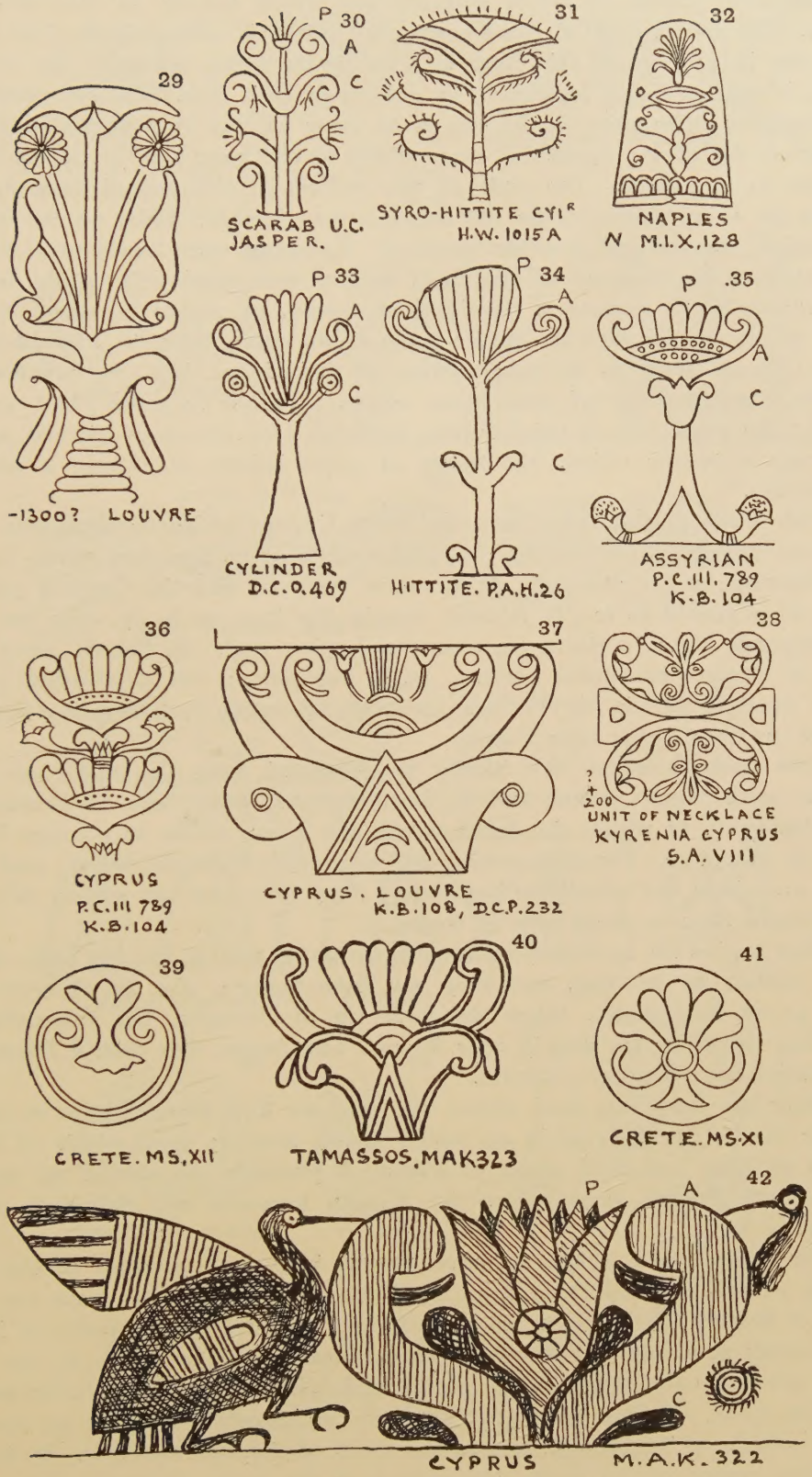
Further changes gradually came in. The pistils were entirely changed into a varied group of flowers (29), while the anthers and calyx remained. Another form is in 30, as lettered on the drawing, where the tips of the spathe are little flowers, and supplementary flowers are added below. On a Syro-Hittite cylinder, 31, the pistils are made into a separate flower on the top. On the same lines is a Graeco-Italian transformation on a gold ornament, 32.

Another change was the enlargement of the pistils in a fan form, 33, and again, 34, where the whole is made into a tree, with two bulls as supporters at the sides. This was a Hittite modification, and yet it retained the three main parts. It is interesting as being the last sight of the flower, before it passed into a very different shape.

The form 35 was long a puzzle, it looked like a bowl containing objects; but the example 34 showed the transition, and in 35 we can just trace the origins, P, A, C, of the parts. This change was the Assyrian form derived from the Hittite. From Assyria this new shape was borrowed by Cyprus (36), part of

1
MM III
KNOSSOS EPM 603
2
MM III
KNOSSOS EPM VI
3
1400
IALYSOS. FLM.V
4
LM II
KNOSSOS TAP.II.52
5
LATE HELL
KORAKOU B.K.VII
6
1450
IALYSOS SAA 1926 f50
7
LATE HELL.II
KORAKOU B.K. f.77
8
PACS
-1370
AMARNA
P.A.XVI
9
PA
-1370
AMARNA
P.A.XVI
10
-1370
AMARNA
P.A.XVI
11
-1370
AMARNA
P.A.XVI
12
PACS
-1370
AMARNA
P.A.XVI
13
PAC
-1200?
BRACELET, LOUVRE
A.S.38
14
PA
-1370
AMARNA
P.A.XVI


15
C
-1370
AMARNA
P.A.XVIII
16
-1370
AMARNA
P.A.XVIII
17
-1370
AMARNA
P.A.XVIII
18
XVIII GUROB P.I.K.XX
19
-1370
AMARNA
P.A.XVIII
20
-1370
AMARNA
P.A.XVIII
21
-1370
AMARNA
P.A.XVIII
P
22
A
C
SACRED PLANT
HAURAN
CYLINDER
H.W.712
23
CYPRUS, CYL^R
HW. 1171
24
PERSIA BERLIN
A·O·XVIII,470
P
25
A
C
S
+730
RELIQUARY OF ALTHAEUS
BA.S. XXIII
26
VULCI
M·I·260 A
P 27
A
C
S
-50
SANCHI, C·I·P. 13
28


29
-1300? LOUVRE
P 30
A
C
SCARAB U.C.
JASPER.
31
SYRO-HITTITE CYL R
H.W. 1015 A
32
NAPLES
N M.I.X.128
P 33
A
C
CYLINDER
D.C.O.469
P 34
A
C
HITTITE. P.A.H.26
P .35
A
C
ASSYRIAN
P.C.III. 789
K.B. 104
36
CYPRUS
P.C.III 789
K.B.104
37
CYPRUS. LOUVRE
K.B.108, D.C.P.232
38
D
D
? + 200
UNIT OF NECKLACE
KYRENIA CYPRUS
S.A. VIII
39
CRETE. MS. XII
40
TAMASSOS. MAK323
41
CRETE. MS. XI
42
P
A
C
CYPRUS
M.A.K. 322

the senseless jumble of styles and motives which belong to that unoriginal island. The strange dotted band across the pistils is unexplained. The loss of all sense in the use of this form is seen by its being repeated one over the other; it was probably looked on as a form of fruit dish. The old parts were put together differently on the top of an Ionic capital of Assyrian origin, 37; the dried tip of the spathe is here added to the inner side of the anther, as a finish to the spiral. The ends of the volutes of the capital turn up, and appear as a repetition of the old calyx, a mad jumble; while, on the front of the capital, the sun and moon are stuck on. Anything came handy to a Cypriote.

Another modification of the bowl motive was turning it upside down in duplication, 38. A variant of the Cypriote capital, 40, makes the calyx into the body of the capital with the pistils and anthers rising from it. Two discs from Crete (39, 41) seem to be modifications of these ideas, but they are undated; if early, they must be of some other origin. Another Cypriote freak, 42, was turning the pistils into a lotus flower, between two enormous curved anthers with tags of spathe added, and traces of calyx below; the whole is between two cranes.

This bowl pattern was borrowed from Cyprus or North Syria into Italy, in about 700 B.C., doubtless by Phoenician trade which was then active. In Italy it underwent farther changes. At Ruad in Syria we find the Cypriote piled-up form, 36, repeated as in 43. Almost exactly the form as in 37, with the inner tag, appears close to Rome (44), on the Appian way. At Falerii, forty miles north of Rome, the similar pattern, 45, is duplicated; this duplication is also on an example (47) in the Vatican (probably Roman), and formed a repeated pattern (46) at Capena near Rome.

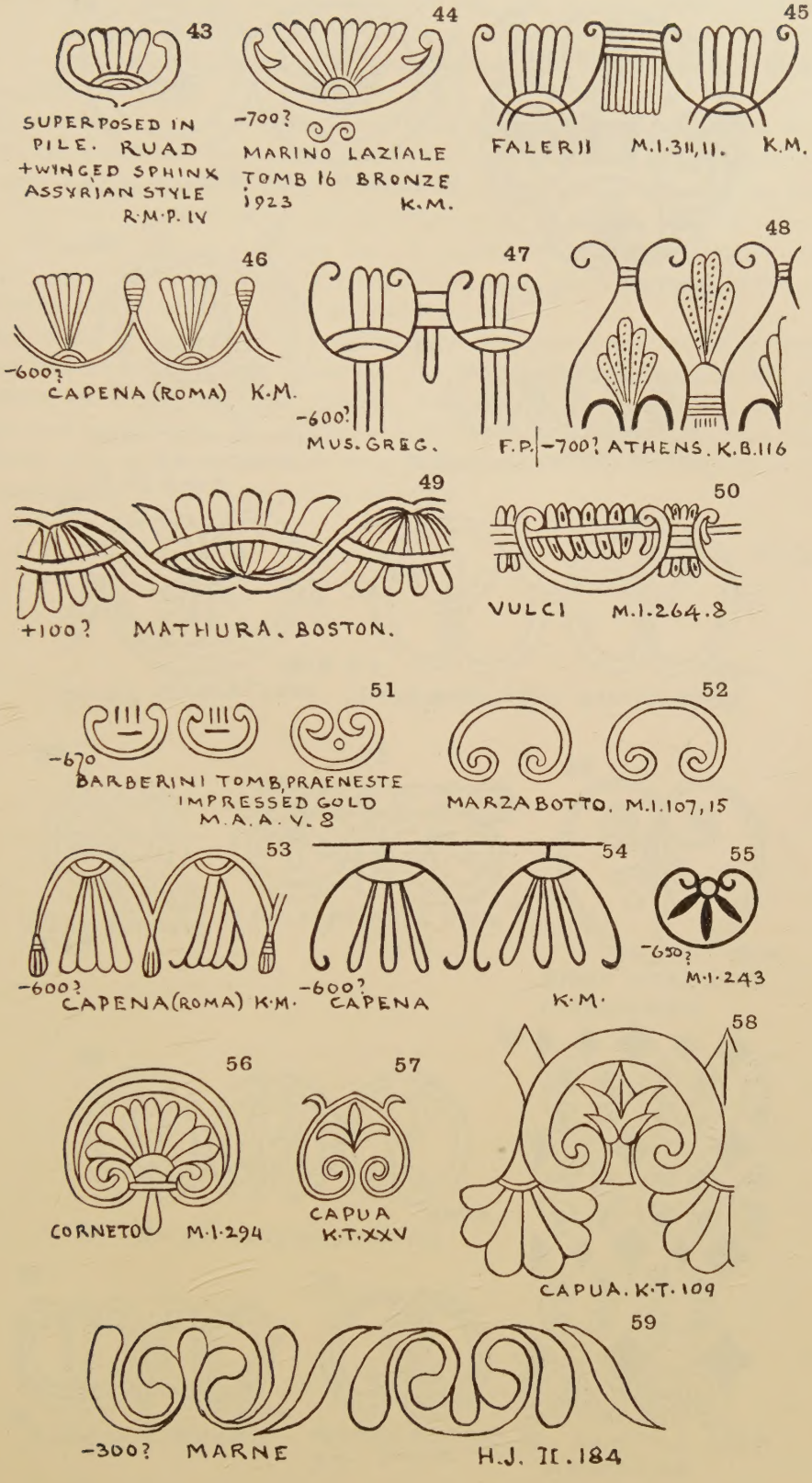
Two patterns which can hardly be separated from this stage are 48, at Athens in the same period, and 49 from Mathura, India (now in Boston Fine Arts Museum), in which the band across the group seems to connect it with Figs. 35, 36 and 50. The last named has advanced from the others and leads on to 51, where the bowl form has merely three lines and one across, detached. This comes from 20 miles east of Rome.

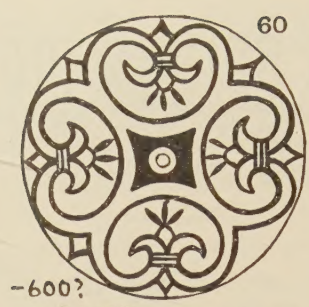
Now begins the inversion of this form; that 53 and 54 are the same subject as 45 cannot be doubted, and they are from Capena, like 46. The inverted form 52, at Marzobotto, takes the form up to Bologna, but otherwise the following examples are mostly near Rome. The design was then a Phoenician importation into Southern Etruria.

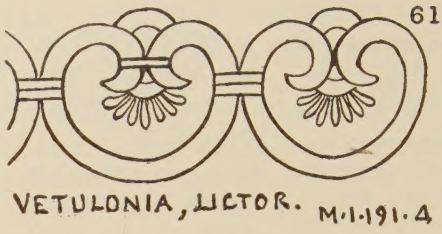
After the form was used either way up, we find more license in adding leafage to the opening, as in 56, which comes from 45 miles north of Rome, and in 57 from 100 miles south of Rome. A probable derivation, 59, appears in Northern France, long before the Roman invasion, and therefore carried by trade.

The Italian form seems to have passed back to Crete (60) in the early period, as this is inseparable from the Vetulonia example, 61, from 100 miles north of Rome. The same is found at Chiusi (62) at 80 miles north of Rome.

Passing now into well-known classical times, various forms of the same design are found about Rome; 64 is in the well-lighted catacomb of S. Sebastiano, on gesso work, of about 50 A.D.; others are on the Palatine (63), on the base of the column of Trajan (65), and in the tomb of the Pancratii (66). By Roman trade this passed out to India, and appears in the caves of Ajunta (67).

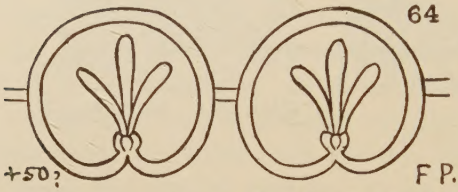

43
SUPERPOSED IN PILE. RUAD
+WINGED SPHINX
ASSYRIAN STYLE
R.M.P. IV
44
-700?
MARINO LAZIALE
TOMB 16 BRONZE
1923 K.M.
45
FALERII M.I.311,11. K.M.
46
-600?
CAPENA (ROMA) K.M.
47
-600?
MUS. GREG.
48
F.P. -700? ATHENS. K.B.116
49
+100? MATHURA. BOSTON.
50
VULCI M.I.264.8
51
-670
BARBERINI TOMB, PRAENESTE
IMPRESSED GOLD
M.A.A.V.8
52
MARZABOTTO. M.I.107,15
53
-600?
CAPENA (ROMA) K.M.
54
-600?
CAPENA
K.M.
55
-650?
M.I.243
56
CORNETO M.I.294
57
CAPUA
K.T.XXV
58
CAPUA. K.T.109
59
-300? MARNE
H.J. II.184


60
-600?
CRETE
K.B.115


61
VETULONIA, LICTOR. M·I·191·4

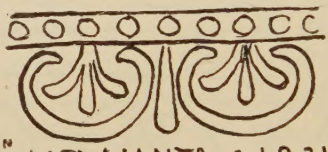
62
CHIUSI. PANIA M·I·225.7

63
+90
CRYPTOPORTICUS
PALATINE
M·A·A, IV, XI


64
+50?
SEBASTIANO CATACOMB, ROME.

65
F P. +130
COL. TRAIAN, G·A·117

66
+150
PANCRATII TOMB
M·A·A·IV·XXXIII


67
+450 AJANTA, C.I.P. 31
INDIA

68
+
546
S·VITALE, RAVEN
R·S·79

69
+546 S.VITALE Φ
RAVENNA

70
+706
S.MARIA ANTICA. ROME Φ

71
S.MARIA ANTICA
ROME ·F.P.

72
+770
S.MARIA, CIVIDALE Φ

Later still it survived at Ravenna (68, 69), and it was worn out finally in the viiith century at Rome (70, 71), and at Cividale (72), where we can bid it rest in peace, with its relics of anthers and the pistil between them still recognisable.

This series is a good example of the long persistence of a form as such, after all the sense has been knocked out of it, and how in new shapes it starts again and runs a fresh course of decay, the Lily, the Bowl, and the Foliage form. The entire independence of the lotus series is clearly marked. The lotus has no external trace of stamens, and the petals are straight. The lily, on the contrary, has everted petals, projecting pistils, and the in-curved anthers, which continue as the main element in the later period.

The dates of the earliest examples show the Cretan origin, before 2000 B.C. Coming thence to Egypt, by 1400 B.C., the idea passed to the Hittites, and on to Assyria as a tree pattern. Thence, transformed by ignorance, it reached Cyprus, and so (passing by its origin in Crete) it came by Phoenician trade to the Tiber, and spread northward from Rome, naturalized in Italy as a foliage form, and finally a senseless group of relief.

Flinders Petrie.

ALEXANDER AND AMMON.

In an article on "Alexander in the Oasis," which appeared in the *Times* of Jan. 7th 1927, I suggested that the purpose with which Alexander visited Siwa was not so much religious as military. Since that article was published, the exhaustive analysis of the evidence by Dr. Ulrich Wilcken in his paper "Alexanders Zug in die Oase Siwa" (*Sitzungsb. Preuss. Akad. Wiss.* 1928, xxx) has shown that there is no substantial foundation for the idea, which has obtained some degree of acceptance, that Alexander went to secure recognition as the son of Ammon, and so to establish his divine title to the kingship of Egypt. But, while Wilcken has re-established the credit of the first chroniclers of the journey, who reported that Alexander went to consult the oracle, as any Greek might do, he does not supply an answer to the doubts which have been expressed as to whether this was a sufficient motive: and it may be worth while to examine what is implied in the statement rather more fully.

In the first place it is necessary to clear up the question of the personality of the god who was worshipped in the Oasis at the time of Alexander's visit. It has been assumed by most recent writers that the temple and cult were Egyptian, and connected with those of Amen of Thebes: but there is no monumental evidence to support this assumption. The inhabitants of the Nile valley, before the time of Alexander, seem to have known little of the Oasis—naturally enough, as the chief trade route from Siwa runs, not east to Egypt, but north to Cyrene: even the Egyptian name for the place, if there was one, has not been identified (so Professor Griffith informs me): and there are no remains of buildings of earlier date than the fourth century B.C. The first suggestion that Ammon and Amen were identical comes from Herodotus (II. 42), and his equations of Greek and Egyptian deities can hardly be claimed as scientific: there is more of importance in his statement that the inhabitants of the Oasis were a mixture of Egyptian and Ethiopian settlers, which may be founded on an actual immigration from Egypt amongst a Libyan population: a possible explanation would be that priests or worshippers of Amen, fleeing from the religious persecution of Cambyses, sought a refuge in the Oasis, and planted their own ritual in the temple of a local god. But this would not necessarily make the cult of Ammon an Egyptian one, even though it might introduce Egyptian elements.

On the other hand, there is definite evidence that the god of the Oasis was known to the Greeks before the time of Herodotus or even that of Cambyses. The legendary visits of Herakles and Perseus need not be discussed, though they may point to a traditional belief in a prehistoric connexion: but about 630 B.C. Greek colonists settled at Cyrene, at the end of the trade-route from Siwa, and they would be sure to come into touch with the natives of the interior without delay. There is not much information about the character of the worship

they would find there: presumably, as concluded by Mr. Oric Bates (Eastern Libyans, pp. 189 ff.), the god was a Libyan ram-god of some kind, since Greeks, Carthaginians, and Egyptians all later regarded him as identical with ram-gods of their own: but the form in which he was embodied in the temple was not that of a ram, but a conical stone (Curtius, iv. 7. 23), which, as Wilcken points out, shows more affinity to Greek than to Egyptian ideas, but is probably Libyan in origin, since the Carthaginians found the worship of a god whom they named Ba'al-ḥammân, suggesting that he was represented by a stone, in North Africa. The native Libyan name may have been somewhat like this in sound, and may have been similarly converted by the Greeks into Ammon, which would be appropriate for a god of the desert region as carrying a hint of sand: but there is no record of the actual form used. It can however be accepted that the Greeks who settled at Cyrene found the inhabitants of the Oasis worshipping a sacred stone, which represented a god of the sheep-flocks for which Libya was then famous, as shown by the epithet applied to it by the oracle at Delphi (Herodotus iv. 155).

These settlers, however, brought with them a god of their own who had a similar connexion with sheep-flocks—Carneius, who is represented on the coins of Cyrene as a youth with ram's horns (see Imhoof-Blumer in *Rev. Suisse de numism.* xxi. 5). His worship is best known in Laconia, where he was commonly regarded as a form of Apollo: whether he was indigenous there, or was brought by Dorian or other immigrants from more distinctively pastoral districts in the north, is an open question (see Adler in Pauly-Wissowa x. 2. 1989). It is certain that he was linked in Cyrenaica with another god, who had the same ram's horns, but was figured as an older bearded man, and known under the name of Ammon. It is quite possible that this god may also have been carried across from Greece: there are traces of the cult of a bearded horned god at several places in the Aegean area, to which it is hardly likely to have been taken from Cyrene—notably at Aphytis, in the peninsula of Pallene. The number of references to Ammon-worship in Greece in the fifth and fourth centuries B.C. is in fact so considerable that some scholars have expressed surprise at the popularity of an Egyptian deity at this period: the situation becomes easier of explanation if we assume that the conception of a protector of the flocks was indigenous in Greece, and that the only outside element was the name, which was reflected back from Cyrene, where the god had been identified with the local god of the Oasis. The form under which Ammon is represented, both in Cyrene and in Greece, is purely Greek, with a short horn of simple curl: this horn is distinct from that of either of the Egyptian ram-gods, of whom Amen has a horn doubled back downwards, and Khnum one standing out horizontally.

Whether he was originally Greek or Libyan, it is clear that Ammon was known to the Greeks as the god of the Oasis, and his temple as a centre of divination, before there is any sign of his recognition by the Egyptians. The earliest definitely historical instance of the consultation of the oracle is that by Croesus, in the middle of the sixth century B.C., the account of which implies that it was regarded by the Greeks as standing on the same level as their own temples at Delphi and Dodona, and that the connexion was therefore already well established. The references to it by Pindar and Plato carry on the same tradition: and, apart from places in Greece where the worship of

Ammon may have been indigenous, a note of Wilcken's (p. 581 note 2) shows that offerings were made to him at Athens in 367/6. In view of this, it is hardly credible that Alexander, whose interest in Greek mythology was very keen, should have thought of Ammon in any other relationship than his Greek one: and the history of this relationship strongly supports Wilcken's conclusion from the literary evidence, that Alexander visited the Oasis in the guise of a Greek consultant of the oracle.

But, if this was the case, what question did he wish to put to the god? Here we are left a free field for conjecture, as it is obvious from Arrian's statement (iii. 4. 5) that the private proceedings in the temple were not divulged: the public greeting by the priests was reported, but all we know of what happened afterwards is that Alexander consulted the oracle and told his companions that he had heard what he wanted. The question to be considered is what advice Alexander could have wanted which he would be most likely to get at Siwa: and in this connexion it has to be remembered that the most famous Greek oracles were practically bureaux where information of all kinds was collected, and many of the enquiries recorded as put to them were obviously designed to tap their stores in regard to problems involved in a prospective undertaking.

The task which Alexander had in hand was the securing of his western frontier. He had gone to Egypt, in the development of his scheme of campaign against Persia, in order to clear his right flank before advancing into the heart of his enemies' country, had occupied the Nile valley, and was engaged in preparing a garrison-town at Alexandria. While he was there, he naturally thought of what risk of attack there might be from outside the valley: and in this connexion there were two regions to be considered, Cyrene and the Libyan desert. He determined to settle this point—the closest translation of the expression used by Arrian would be the modern slang "he had an urge"—and started westwards. The problem of Cyrene was promptly solved: it was a Greek colony, and welcomed him: envoys met him at the frontier to announce their adhesion to his cause. But there still remained the desert, from which raids had come in the past, and which had swallowed up the army of Cambyses: and to investigate that it was desirable to go on to Siwa.

It has been objected to the suggestion made in my previous article that Siwa has never been of military importance. If this means as a military station, it may be granted: it would be hard to imagine any circumstances in which the occupation of the Oasis in force would assist to secure the Egyptian frontier, without an expenditure entirely out of proportion to the value of any possible results. But it is questionable whether Alexander was in possession of information which would enable him to judge on this point, at any rate when he started from Alexandria: as we have seen, the Egyptians knew little about the Oasis, and could probably tell him nothing except stories of the disaster of Cambyses: it was not till he met the Cyrenaean envoys at Paraetonium that he would be likely to get first hand particulars of the nature and situation of Siwa: and, as he had set out with the intention of going there, it would be consistent with all we know of his character to stick to his plan. Further, even if the Cyrenaeans told him how the land lay, with full details, it would reveal to him that, while the Oasis had no value as a defensive post to cover the Egyptian frontier, it was a possible basis for offensive operations by the

desert tribes against that frontier, and some measures needed to be taken to check these.

Alexander was, in fact, in a position in some respects comparable to that of the English army in Egypt in 1914: and, as we found it worth while to spend a good deal of time and money over the Sheikh of the Senoussi, it is reasonable to conjecture that he may have seen the advantage of dealing similarly with the priests of Ammon. He would learn from the Cyrenaeans that Ammon, whose oracle was so famous in Greece, was also a god of supreme authority among the Libyans, and that the priests of the temple were able to exercise influence over them: further that, while a military expedition against the Oasis was a risky undertaking, there was no great difficulty in the way of a party of pilgrims or peaceable traders going along the regular road. So, fortified by precedents, he announced his intention of proceeding to consult the oracle, and duly arrived there: what passed in the secret conference may be surmised to have consisted in an arrangement that Alexander should do honour to Ammon by a substantial offering, and that the priests should show their appreciation by preventing the tribes in their neighbourhood from raiding Egypt. This plan, if we are right in assuming it as Alexander's, was successful,—much more so than the alternative one adopted by Mehemet Ali of massacring the inhabitants of Siwa,—and the Libyans ceased to trouble Egypt for over five centuries.

The theory that the object of the expedition was primarily military (it is fair to call it military, as it formed part of a scheme of military campaign, although this particular point was won by diplomacy, not by force) and that the religious part was either incidental or accessory, seems to accord with the history of its results. So far as the immediate neighbourhood of Siwa was concerned, these were the purely political ones mentioned in the preceding paragraph: no one there seems to have taken any interest in the divinity of Alexander or to have connected him with Ammon in any act of worship. There is however little direct evidence on this point obtainable from the Oasis: but in Egypt, where more is available, it all leads to a similar conclusion. The idea of attaching importance to the sonship of Ammon which the priests had announced in their greeting to Alexander did not arise in Egypt: so far as the records show, Alexander was not worshipped in Egypt as son of Ammon or of Amen: it would probably be true to say that he was never regarded as a god by the natives in any form. There was indeed a priesthood of Alexander which was instituded by the Ptolemies, but this was merely a Greek court appointment: the names of the priests are scarcely mentioned except in the dating formulae of Ptolemaic documents, where they appear side by side with those of the priests of the reigning house, and there is no evidence that any of these priests, either of Alexander or the Ptolemies, did anything more than occupy decorative posts. The artistic representations of Alexander in Egypt, moreover, do not contain that suggestion of a connexion with Ammon which is found elsewhere: the portrait-head adopted as a coin-type there, not long after his death, is not given the ram's horn on the temple which was introduced on the coins of Lysimachus, but is covered with a cap in the form of an elephant's head: and this type, and a more realistic one without any adjuncts, were the only ones used by the Alexandrian artists.

It is at first sight rather curious that the horned type should have been first introduced in Thrace, if it arose from the greeting of the priests at Siwa:

but this really emphasizes the point that, so far as there was any religious atmosphere about Alexander's expedition to the Oasis, it was intended to make it appear Greek, and interested the Greeks much more than the Libyans or Egyptians. It must also be remembered that this type does not represent Alexander as the bearded Ammon, but as the youthful Carneius,—fittingly, of course, if Carneius was regarded as the son of Ammon,—and that Carneius was a definitely Greek deity, whose worship can be traced in the regions where Lysimachus ruled, as well as in the Peloponnesus and Cyrene. It was therefore not unnatural that when the artists of Lysimachus were told to create a portrait-type of Alexander for the coins, especially as it was an innovation to place any head except that of a god on a coin, they should mark his divinity by an emblem derived from their native Carneius, with whom Alexander could be identified on the authority of the priests of Ammon: and this type spread over the Aegean area and eastwards into the heart of Asia, though it was never officially accepted in Egypt.

Ammon did, indeed, secure some recognition in Egypt in the Graeco-Roman period: but the circumstances of this development have already been discussed in my note on "The currency reform of Ptolemy II" (*Ancient Egypt*, 1928. ii), where I suggested that it might be ascribed to the policy of Arsinoe, who knew how the connexion between Alexander and Ammon had caught the popular fancy in the kingdom of her former husband, and may have hoped that it would serve a similarly useful purpose in Egypt. She may have been shrewd enough to see that the artificial conception of Sarapis would not get hold of the Egyptians,—as in fact it never did,—and have tried to provide a substitute in Ammon as a Graeco-Egyptian god. And he did win favour: but it was not as the father of Alexander nor as a special state divinity.

If the worship of Amen as a ram-god at Thebes had any connexion with Libya, it seems more likely that the borrowing was by Egypt from the west rather than the other way. As Sir Flinders Petrie has reminded me, the great gods of the Thebaid were primarily Min and the bull of Erment, and Amen of Thebes was an intruder: and it would accord with this to assume that a wave of Libyan settlers brought with them their primitive ram-god and established him at Thebes, where political events helped him to a commanding position. But there is no trace of a continuous relationship between Thebes and Siwa in religious matters, and, if Amen was originally a Libyan immigrant in Egypt, he became Egyptianised without much delay.

J. G. Milne.

REVIEWS.

The Hittite Empire. By John Garstang. 8vo, 364 pp., 53 pls., 45 figs., 12 maps. 1929 (Constable, 25*s.*).

Anatolia is a land of strong contrasts. Fertile beauty on the Aegean coast, and a barren salt plain in its heart, utterly dreary and bare of life; a flat sheet of rock, ending in the east with immense mountains and precipices, which make the Alps seem homely. To this wild land there pushed in from Europe a people whose language is most akin to old Latin, at about 2750 B.C. in the Neolithic times before the Early Bronze Age. They advanced until they had passed a mountain barrier and two long rivers, and then set up their capital on the watershed beyond, where they only lay open to a desolate sea, the south-east corner of the Euxine. Thus entrenched they spread out their dominion far and wide, over all Anatolia, Armenia, and North Syria; sacked Babylon in 1925 B.C., went down into Palestine, where they were a large element in Jerusalem ("thy mother was a Hittite" as Ezekiel said), sold land to Abram at Hebron, and even left their silver finger rings in the south desert at Beth-pelet. Yet these people were unknown fifty years ago, and very gradually we are learning somewhat about them.

Their capital was called Khatti, from which they had the name of Khattian or Khity (Heb.) which we render Hittite. It was founded about 2000 B.C., at about the middle of the Hyksos domination in Egypt. This influx from Europe was later paralleled by the Akhaian movement against Troy (1200 B.C.), the Kimmerian and Scythic invasion of Anatolia from Europe in 750, the Celtic attack on Pergamos and settlement in Galatia 230 B.C. and the Gothic movement in the Euxine 270 A.D. About every five centuries Europe pushed over into Asia.

The contact of Hittite and Egyptian began in the xviiith dynasty. Tarkhundaraush was sending presents to Amenhetep III, and desiring to marry an Egyptian princess. In the next reign there were more presents, and a proposal to renew the old alliance. The revolt in Syria began with an attack by chiefs of the lower Litany river upon those higher up, an attack backed by the Hittites, who took Amki ('Ammik), south-east of Beyrut (*Syria and Egypt*, p. 60). A descent of the Hittites further into Palestine may well have followed on this. In the Egyptian recovery, Horemheb and Sety I had treaties with the Khita, and Sety established Egyptian control. Ramessu II warred with them at Qedesh, without taking the city, and in the 34th year of his reign he married the daughter of the Hittite king, and poetically named his bride "Dawn," as the beginning of an age of peace.

The allies of the Hittites in attacking Egypt are listed by Prof. Garstang and the Egyptian compared with the Greek forms of the names. This Egyptian

list has been variously interpreted; writers more familiar with Greek than with Syrian geography have tried to fit on classical names, but it seems more reasonable, where place names in north Syria agree with the account, to accept them. The first form of each name here is the Egyptian, the second classical or modern. Kheta, Khity (Heb.); Naharin, Naharain; Aretu, Aradus; Masu (or Mausu), Gebel Musa near Antioch; Keshkesh, Mt. Kasios (S. of last); Pidasa, πιδεσσα "full of springs," in Cyprus?; Arwena, Oroanda (Pisidia); Luka, Lukioi; Derdeny, Dardaenoi, or else Durdun, Mt. N. of Issus; Qīrqash, Kirkesion; Qaīrqamesha, Karkemish; Qazauadana, Kataonia; Khilbu, Haleb (Aleppo); Akarta (Ugarit cuneiform), Gebel Okrad; Qedesh, the capital; Qedi, Phoenicia; Anaugas, the store city of Megiddo; Mushanata, Musna (40 m E. of Qedesh). Thus the Egyptian list begins with the north Syrian coast, goes west to Lycia; thence it is a long step to Dardania, and the list goes on in north Syria, making the Syrian Durdun more likely: from Syria it goes down to Phoenicia and Megiddo. The importance of the Khati is proved by their raising allies from Lycia to the Euphrates, and from Cappadocia to Haifa, and this entirely to defend Qedesh, and not as a plundering party.

The latest trace of the Khita is stated by Prof. Garstang to be the Kēteioi in the Odyssey; but there is a later local survival in the name of a district of Cilicia, Kētis, which lay along the coast opposite to Cyprus, as recorded by Ptolemy (*Ancient Egypt*, 1916, 32). Even later, an interesting question arises from a Christian gravestone of the ivth century at Ekrek (now in the Stambul Museum) which has no Greek inscription, but one in linear Hittite of debased style. It has been stated to be an older Hittite monument recarved with crosses and rosettes; but on very carefully examining it by reflected light there is no trace of erasure; it is almost impossible to suppose a great amount of work done in sinking the ground to leave crosses in relief, while leaving a pagan inscription and not cutting any Greek epitaph. It strongly suggests that in the wild hills between Tyana and Caesarea the use of Hittite hieroglyphs had survived into Christian times.

We have now looked at the general ground of the subject, and turn to note how Prof. Garstang has supplied the detail. His work deals with the empire rather than with the civilisation of the Hittites. After an historical outline, the nature of the country is described, the road system, and the communication with lands around. The site of the capital is described with plans and views, fully outlining the results of the German excavation. The rock sanctuary with its processions of figures is well illustrated in detail, and discussed. The conclusion is that it represents the divine marriage of a god and his followers, forty-two in all, with a goddess and her priestesses, twenty-one in all. Among the figures behind the god are two minor deities, and among the followers there are the high priest with the lituus and five officials, apparently the axe bearer, the scribe, and other functionaries. The end is brought up by twelve guardsmen bearing scimetars (*khepesh*). The goddess has her youthful son behind her bearing the double axe, and two goddesses of the city of the double eagle; others have no attributes.

After these central monuments the others of this age on the plateau are described. Among the sculptures of Eyuk is that of a man playing a guitar, which has numerous frets and a fiddle-shaped body pierced with ten holes. The elks with palmate horns are shown as in Siberian art. Next are described

the coast lands and Taurus range with their antiquities; the Hittite cities of north Syria, Sinjerli, Sukje-Geuzi and Carchemish. It is only at the latter that a continuous history has been traced, beginning with a long Neolithic age, followed by the building of the Hittite city at about 1800 B.C.; a second Hittite period was ended in 1200 by a great invasion from the north-west, and a third period extended to the final overthrow in 604 B.C. Other cities with Hittite remains are described, such as Qedesh, but so little has been excavated in this region that scarcely any details are known. In southern Syria there is the great site of Hazor; and remains at Beth-shan, Shechem, Jerusalem, and Beth-pelet.

The whole work is a valuable and readable account of the country and fixed monuments; it needs now equally full detail of the portable antiquities, the pottery, bronzes, weapons, seals, weights, and a statement of the results from the cuneiform Hittite literature, and of the attempts at reading the hieroglyphics. All this would give vitality to the framework which is described. Have these things been published? Have they been preserved? Has there not been a disregard of everything except sculptures and tablets? Would not a clearance of the Khatti rock sanctuary with trowel and sieve give some fresh results? It looks as if we still needed a real archaeological search of the sites; meanwhile Prof. Garstang has given us a great outline, waiting to be filled up.

Staat aus dem Stein. By H. G. Evers. 4to. Vol. I, 117 pp., 148 pls. 40*s*. Vol. II, 129 pp., 16 pls. 30*s*. (Bruckmann, Munich), 1929.

None of the many albums of Egyptian Art that have appeared in recent years is of such critical value as this, and none so reasonable in price. Above all, the photographs have been taken in the plane of the profile, and not opposite the ear foreshortening the profile. It is entirely a study of the Middle Kingdom sculpture, covering four or five dynasties. There follows in volume I a general review of the sculpture from the beginning. In volume II is a minute analysis of the variations of all the details, with many plates and text figures. This work is, in short, a scientific study fully documented, and not merely a publisher's picture book.

The series begins with a yellow limestone statuette of a seated king, unnamed. The face is peculiarly full and wide, without thick lips (Pl. i and vol. II pl. viii). It is considered to belong to the viith–xth dynasties, but we may rule out the vii–viii period as being under Syrian kings. Another face, from Bubastis, is of the same type and expression, in II xii. This is tentatively thought to belong to mid xii, but it is not like any of that family of kings. There is some resemblance to the Mentuhetep princess pl. xi, and it might be an ancestor of that family; Mentuhetep III (ix) might belong to the same type strengthened by the finer type such as that in vii. This same type underlies the face of Amenemhat I (xvii).

A fragment of Uahka is placed here (xxi) under Senusert I, and a torso of Uahka II under Amenemhat II, without any absolute dating. But it is impossible to bring this family of Qau into the xiith dynasty. There is not one instance of the name Uahka in the xiith dynasty. Conversely there are 159 names associated with the name Uahka on steles, but only a single one of the common xiith dynasty type with Amen or Mentu. These Uahka names

are linked with the ivth–vith dynasties rather more than with the xiith–xiiith. This historic value of names is treated, with full lists, in *Ancient Egypt*, 1924, 76. The Uahka family in the xth dynasty shows its ancestry of the xiith dynasty, as a son of Uahka I was named Senusert. The physiognomy of Amenemhat I is that of the wide-faced Egyptian type (i, xvii) which is probably that of the Mentuhetep family; the Uahka ancestry of the name Senusert therefore points to Amenemhat having married a Uahka heiress, and so united the powerful Uahka family of Qau with the Mentuhetep family of Thebes. It is to be observed that the xiith dynasty in Manetho does not begin with Amenemhat but with Senusert I; his father was reckoned as being of the previous line.

We now enter on the great series of the xiith dynasty kings, and have here a better assembly than has yet been made for discussing their differences of feature. Without a large number of photographs it is impossible to demonstrate the points to be observed, but an outline of the position may be given here. The fashion of labelling every unnamed head of this age as Amenemhat III is absurd, for there is no resemblance between most of the foundlings. It is needful to require an inscription date for each head that is relied on for comparisons; many of those published with names attached have no authority of cartouches. In the following account small Roman numbers refer to vol. I of Evers.

Amenemhat I, according to his only statue (xvii Tanis) and his only relief (Koptos) was of a full-faced jovial type of the native Egyptian stock.

Senusert I was very different, and this must be ascribed to his mother of the Uahka family. His named figures are the Lisht statues (xxvii–ix), two Karnak colossi (xxxiv), the Memphis statue (xliv) and the Lisht wooden figures (xlvi). His characteristics are a wide dual chin, with a very energetic and rather severe face. From the profile and other details it seems that to him we must assign the two great Bubastite statues (cxiii–vi) and some of the Tanis sphinxes (cxxi–iii), if, indeed, these do not belong to his Uahka ancestors.

Amenemhat II was marked by a short face, large eyes, arched brow, round chin, and smiling features. The Paris sphinx (xlviii–l) is the only dated figure of him. Of undated heads there seem to be the Karnak sphinx (xxxiii), the Alexandria statue (xxxvi), and the Tanis sphinxes (cxxiv–v).

Senusert II does not seem to have remaining a single head in the round, and only a small relief (*Lahun* II xviii) gives a profile. Of the three statues attributed to him (lxiv–ix) all have been stolen by Ramessu II and none have the nose complete, so there is only conjecture for their attribution. Heads of the same type are in Berlin 17551 (cxxxiii), which agree fairly with the Lahun profile, and perhaps the Vienna bust (II xiii): the straight thin lips of the Copenhagen head (lxix) seem to descend from his mother (?) the princess from Abydos (li), and the old king with rounded sunken eyes (*Abydos* III xii) is the same man.

Senusert III has left a distracting variety of statues, at first sight very different. The harmonizing of these requires the view that he was not of strong constitution, and fell into serious illness in later life; the sunken eyes of the Medamud head (lxxxvi) and the drawn-down mouth of the Deir el Bahri figures (lxxxiii-v) show this deep-seated illness, like the mouth of the late Lord Curzon. The droop of the mouth is exaggerated in photographs taken

below the face, as the cheeks slope back from the mid line. A marked feature in the heads of later age is the puffiness in the cheek that descends diagonally from the inner corner of the eye. This is seen in the New York sphinx, the Karnak colossus (Cairo 42011), and the Deir el Bahri head (lxxxv). The earliest head is that from Medamud (lxxvii), which is far from robust; the mouth repeats the grandmother's (?) of Abydos (li). The falling in of the face is marked by the sharp angle of the cheek bone in lxxxiv.

To resume, along with the unnamed heads:—The Medamud statue is the earliest (lxxvii) with straight mouth; the Medamud fragment (lxxxvii) is rather later. The diagonal puffiness in the face follows in the Karnak colossus (lxxx–i); it shows in the Vienna head (lxxxix–xci), on one from Medamud (xcii), the Copenhagen head (cxi–ii), and the diorite sphinx (lxxviii–ix). The mouth droops in the Deir el Bahri head (lxxxiv–v), and the fish offerers (cxxix); the eyes begin to fall in and be rounded (lxxxiii); lastly the eyes become deeply sunk and round, on the Medamud head (lxxxvi), and the Hildesheim fragment (lxxxviii).

Amenemhat III has only five named statues; the youthful one from Hawara (cii–iv), two shrines from Hawara (II p. 111 and *Labyrinth* xxiii), the fine middle-aged figure from Memphis (Berlin cat. 1121), and the old figure from Karnak (cxxxi–ii). The characteristics are, a wide flat face, straight mouth, slight lips, straight nose, and a weak unenergetic expression. Closely like the Hawara figure is a head at University College (*Anc. Eg.* 1914, 43) with similar features but too narrow a jaw, and a yet more patient air of inactivity. In view of these it is hard to believe in the head from Kom el Hisn (ci), though it was found with a headless figure of Amenemhat III. But it might be a boy of 14 years who grew up to be an invalid man of 30, as in the University College head. The jaw in both is too narrow for Amenemhat III, but the resemblance to him suggests that these may be of his son Amenemhat IV. The rest of the heads which have been so thoughtlessly assigned to Amenemhat III, without any resemblance, have been here placed with the kings to whose types they most nearly approach.

The portraits of Neferhetep (cxliii) are of the same type as Amenemhat III, and much like the princess of Abydos (li) who brought in the delicate mouth to the robust early strains. Mermashau (cxlvi–viii) was of a very different breed. We here trace the types long persisting in a family, as they may be traced in the English kings. The thin ascetic type of Henry III, Edward I, II and III, was upset by the burly Flemish Philippa of Hainault. The Black Prince, Richard II, and Henry V and VI, kept the old type, but Henry IV had the Flemish type. Even later both types yet appear; Edward IV, his daughter Elizabeth and her son Henry VIII are of the Flemish type, while Richard III, Henry VII, and Elizabeth, kept up the ascetic type.

The history of the Egyptian kings shows steady decadence after Senusert I, the brilliant product of the mixture of Egyptian with the Galla Uahka. After Senusert II the family were rapidly falling off in stamina. The condition of Egypt seems to reflect the family vigour; the work under Senusert I is the finest, and the last two or three reigns did despicably.

The text of this volume deals with the general development of Egyptian Art, from the first dynasty, and discusses the plates. This is more of an abstract appreciation, without touching the questions of history, of race, of family types,

or individual lives, so that it does not add to our historical view. Unfortunately the Uahka monuments are placed too late, and the confusion of false attributions to Amenemhat III is unchecked.

The second volume is purely technical in its study of all the variations of detail, such as the alternations of colours, the forms of the head-cloth, the pig-tail, and the ribbing of the cloth. In all this detail no notice is taken of the different kinds of stone; each kind was used by its own local school, and it is likely that certain patterns would belong to different localities and be used at the same time. Certainly the style of carving was local, differing according to the material. The forms of crowns are traced, the shape of the uraeus on the head, the female hair-dressing, the beard, the necklaces, body ornaments, girdle patterns, armlets, and the position of the hands. The ox-tail dress of the king is described of various dates, the form of throne, place of inscription, the sandals, reliefs carved on thrones and the form of cartouche. The types of steles are described, and the details of sphinx forms. Lastly come remarks on the details of monuments in each reign.

All of this is elaborately done, and most useful for reference: but it covers so short a period that local varieties are likely to be more important than variety in age. This study is a first step, of which the results will not be gathered until each great period is similarly treated for comparison. We hope that Dr. Evers will carry this work forward in the other periods, and so give a full apparatus for dating.

The Composition of Judges ii, 11 to I Kings ii, 46. By Harold M. Wiener. 4to, 40 pp. (Hinrichs, Leipzig, 1929).

The sad murder of Mr. Wiener by an Arab fanatic gives special interest to this last publication of his. It is a great loss to sane criticism that we shall have no longer his ready Hebrew and legal training for the rational judgment on the origin and compilation of ancient documents. As a friend to all research in Palestine, and to the future amenities of the parties there, he will be greatly missed.

The present study examines the composition of the historical books which record the period between the death of Joshua and the accession of Solomon. Before entering on it we may here notice the relative proportion of such writings referring to the different periods, as this bears on the date of the formation of the successive sections. The proportionate number of columns of print to each ten years is as follows:—

Judges	4·0
Saul	15·6
David	16·2
Solomon	7·7
To fall of Samaria	2·9
To fall of Jerusalem	1·6

Clearly here the period of Saul and David was written up by a contemporary, as it is on even double the scale of history of the more glorious age of Solomon; the dearth of writing, later, is very marked. This seems entirely to preclude any writer in the later Monarchy for the Davidic history, and it gives further ground for accepting Mr. Wiener's position which we now proceed to summarise.

The discrepancies in the narratives of these historical books show that separate documents have been compiled, but the extreme disintegration by Ewald and others has far exceeded the evidence. The plan is noted of marking in the text such material as we should place in a footnote, by its having placed after it a repetition of the previous clause; this is like our resuming, after a digression, with "as I was saying." After these structural remarks the main narrative of Saul and David is assigned as being probably by the prophet Nathan, and is here called the N. narrative. The passages which link together by reference, by implications, and by party views, are these noted. Starting from the middle of David's reign the links are traced backward and forward, finally the N. document is listed as being composed of Jud. ix, I Sam. xvi 14–23; xviii 6–16, 20–29; xix 9–17; xxi 2–10; xxii 6–xxiii 13; xxv 16–xxviii 2; xxix–xxxi. II Sam. i 1–5, 11, 12, 17–v 3, 6–12; vi, vii, ix–xx. I Kings, i, ii. This document is apparently what is noted as the "history of Nathan the prophet" in I Chr. xxix 29; II Chr. ix 29. The history of Abimelech, in Judges, is brought in solely on account of one reference by David, which seems hardly sufficient to link it as a part of this consecutive history.

The second main source is a narrative which pays attention to Gad the seer, and may be by a follower of his. The passages are I Sam. xvii 12–31, xviii 17–19, xxi 11–xxii 5, xxiii 14–xxiv, xxviii 3–25; II Sam. viii. The difference of method in N. and G. suggests that G. wished to suppress the discreditable events, and was occupied with statements of booty and preparation for the Temple building, which had been postponed by N. G. is also hostile to the family of Saul. It is considered that this account was written between 940 and 900 B.C. in order to supersede N. Both versions are clearly Judaean, and not in the interest of Samaria.

Most of the present paper is occupied in discussing details of the additions to N. and G. The investigation of the book of Judges is very tentative; the earlier part is considered to agree best with the conditions before 750 B.C.; the later part is looked on as due to Hezekiah, some thirty years later. The whole of this is too complex and uncertain for a summary.

JOURNALS.

Zeitschrift für ägyptische Sprache. Vol. LXIII, Part 1, 1927.

Junker, H.—*Von der ägyptischen Baukunst des Alten Reiches.* This article consists of two lectures on O.K. architecture:

(1) *Changes in Style during the O.K.* and (2) *The development of the Gizeh Mastaba.*

The writer concludes that the original ivth dynasty type of mastaba does not represent a continuous development, but was constructed in relation to the style of the whole site, the advanced type of stone mastaba already in existence being set aside and a return made to more primitive forms. Further, that the appearance of variations within the ivth dynasty and of new forms in the following period is not to be regarded as development, but rather as a breaking-through of suppressed types. For dating purposes, any serious departure from the normal is an indication of later date, but the occurrence of certain elements alone, such as false door or serdab, affords no clue to dating. Mastabas must not be compared one with another, but must be considered in relation to the whole site in which they stand.

Recklinghausen, H. v.—*Rechtsprofil und Linksprofil in der Zeichenkunst der alten Ägypter.* Why in Egyptian art was the human figure normally represented as seen from the right side, and looking towards the spectator's right? The writer finds the solution of this problem in the righthandedness of the person depicted, in conjunction with the observance of certain rules of drawing for the position of arms and legs and the avoidance of a back view and of the crossing and diminution of limbs. For the "conceptional" principles of Egyptian art could have been equally satisfied by the left profile. In cases where it is necessary to show the subject from the left side (as on the right side of a tomb door), considerations of symmetry apparently demand the holding of tools or weapons or insignia in the wrong hand. It is seen on closer scrutiny that this difficulty has been overcome, and fidelity to nature preserved, by various devices such as drawing the hand holding the object as a right hand even though it terminates a left arm; if the arm and hand match, the object may be represented as passing behind the owner's back, or a garment may be shown as worn by a person drawn from the right side.

Bissing, Fr. W. v.—*Totenpapyros eines Gottesvaters des Amon.* This is a short report on a photograph of a funerary papyrus which was submitted to the writer for his opinion by a dealer.

Alt, Albrecht.—*Die asiatischen Gefahrzonen in den Ächtungstexten der XI. Dynastie.* Though Sethe was able to draw important historical conclusions from the names of the Egyptian rebels cursed in the M.K. texts which he published recently,[1] none can be drawn from the names of the African and Asiatic rulers in the lists, until more exact details are available from other records. The writer proceeds, therefore, from the names of places and countries mentioned. He localizes the danger zone of chiefs (*ḥḳ3·w*) and their followings in the near neighbourhood of Egypt up to and including S. Palestine. This would account for the nearest neighbour of Egypt in the xiith dynasty being *Rṯnw* (the capital of which he has elsewhere shown to be Lydda), which is not included in the danger zones; the intermediate area would have been meanwhile subdued.

Struwe, W.—*Die Ära „ἀπὸ Μενόφρεως" und die XIX. Dynastie Manethos.* By two ingenious suggestions the writer is able to make Manetho's list for the xixth dynasty agree with the list obtained from the monuments. He holds that this much-disputed word in a passage of Theon of Alexandria is really a king's name, and that it represents Mernepthah, a name of Seti I. The name Σέθως in Manetho's list he regards as representing not Seti but , a name for Rameses II. If Μενόφθης (the emendation suggested by Lepsius) is really Seti I Mernepthah, then the year 1318 falls in his reign and we thus have a new "Sothis date" for fixing the dates of the kings of the xixth dynasty.

Sethe, Kurt.—*Atum als Ichneumon.* *ʿd* (of which the early form was presumably *ʿnḏ*) is shown to be the Egyptian name for the ichneumon, an animal sacred to Atum of Heliopolis and to the Sun god, who is also called . This animal wages war on snakes, and nearly always kills them. To this fact Sethe suggests it may owe its name, even as the Sun god may owe his name of *ʿnḏ* to his victory in the form of an ichneumon over the Apophis serpent (*see* Daressy, *Ann. du Serv.* 18, 116 ff., "Ra changed himself into an *ʿd* animal ... to fell the Apophis snake ..."). Moreover the name for the nome of Heliopolis may have some connection with the same fact, even though *ḥḳ3 ʿnḏ* is more likely to mean "uninjured ruler" in this case than "Ruler Ichneumon."

Junker, H.—*Die Stele des Hofarztes Irj.* This is a full account of a stele of unusual interest which was found in 1926 in the cemetery West of the pyramid of Khufu. It had probably been brought there from another site, and its place of origin is uncertain. It may date to the end of the O.K. or even later, say xth dynasty. The interest lies in the names and titles mentioned in the inscriptions; the titles show the advanced state of medicine in Egypt at this period, as the owner was not merely a court physician but also a specialist in several branches. In the space of nine short lines of text the owner is called by three names and nine titles. The names are and . The combined name is read by Junker as "Pepi·en·ankh whose

[1] *Die Ächtung feindlicher Fürsten, Völker und Dinge auf altägyptischen Tongefäßscherben des Mittleren Reiches* (*Abhandlungen der Preuß. Akad., phil.-hist. Kl.*, 1926, No. 5).

beautiful name is *Ir·in 3ḫty*," a reading which elucidates other difficult combinations. The nickname in this case is an abbreviation of the "beautiful" not the family name. Of the titles, some indicate rank or seniority; others (e.g. "court oculist," and some which are rather obscure) show that this court physician was a specialist in several branches. The latter titles indicate that there were specialists already in the O.K. in most of the departments of medicine mentioned by Herodotus (II, 84), and the author supplies one of the two missing in this stele by suggesting that or means dentist.

Ebbell, B.—*Die ägyptischen Krankheitsnamen.* Four more Egyptian names of diseases are identified:

13. = gangrenous abscess (secretion) or such like.

14. = cancer uteri.

15. = swelling of the lymphatic glands.

16. = Urticaria?

Kees, Hermann.—*Textkritische Kleinigkeiten.*

1. *ḥw śḏb cc. r to "curse, to condemn someone."* The writer substitutes this translation for the expression which occurs in a passage in *Admonitions* and in *The Instructions for King Merikara* respectively. (For the former passage see *Admonitions,* p. 78 and Erman, *Literatur der Ägypter* [1923], p. 145; for the latter, *J.E.A.* I, p. 26 and Erman, *op. cit.*, p. 112.) The expression also occurs in curses of the xxiind and xxvth dynasties against desecrators of tombs and monuments. In the old religious texts, particularly the Pyramid Texts (e.g. Pyr. 1299 b and 255 b–c), the expression construed with *n* has the opposite meaning of congratulate, greet, or hail.

2. *A maxim of the Heracleopolitan period.* In Pap. Petersburg 1116 A, *recto* occurs a remarkable passage to the effect that "he who is wealthy does not deal partially ... the poor man ... inclines towards the possessor of rewards." (See *J.E.A.* I, p. 26.) The same thought and some of the same phrases occur also in biographical inscriptions of the beginning of the xiith dynasty, and were obviously quoted from this maxim. Kees considers that the sentence must be older than the early years of the xiith dynasty, and that there is accordingly good support for the opinion that the Petersburg *Instructions* and other works which claim to have been written in the Heracleopolitan period actually were written then—a view which considerably affects our estimate of the xiith dynasty as the golden age of classic literature.

Czermak, Wilhelm.—*Rhythmus und Umbildung im Ägyptisch-Koptischen.* This is a lecture delivered in Hamburg in September 1926 to a meeting of Orientalists, and is extremely difficult to summarize. In his own summing-up the lecturer remarks that he has not indeed offered his audience anything really new, for it would be carrying coals to Newcastle if one were to explain what rhythm and transformation in Egyptian are. His aim was merely to indicate the value

of a synthesis which connects sense and form and interprets physiological facts psychologically, thereby animating the material with the spirit within it. Phonetics and rhythm, style, syntax, grammar, and the history of a language are indeed one at bottom and cannot be separated from the spiritual and cultural history of the race. He believes that by the method indicated some light is perhaps thrown on the position of the vowels in the individual phrases, which may increase our knowledge of grammatical forms.

Till, Walter.—*Bemerkungen und Ergänzungen zu den achmîmischen Textausgaben.* The following texts are dealt with in this article: Steindorff, *Die Apokalypse des Elias* (TU N.F. II, 3 a); Carl Schmidt, *Gespräche Jesu mit seinen Jüngern nach der Auferstehung* (TU Series III, vol. 13); Carl Schmidt, *Der erste Clemensbrief in altkoptischer Übersetzung* (TU Series III, vol. 2); Friedrich Rösch, *Bruchstücke des ersten Clemensbriefes*; E. Lacau, *Textes coptes en dialectes akhmimique et sahidique.*

Miscellanea.

Sethe, Kurt.—*Zum Namen Pharbaithos.* Sethe here shows how *Horbeit* is derived from an Egyptian prototype "House of Horus of the Two Eyes" = Pharbaithos.

Sethe, Kurt.—*Zu Ä. Z. 62, 83 ff.* Sethe cannot accept Gunn's derivation of the word offered in the above number of the *Zeitschrift.*

Schott, Siegfried.—*Die Zeremonie des Zerbrechens der roten Töpfe.* Sethe's reading of the curses on broken M.K. pots[1] enabled him to interpret a passage in the Pyramid Texts which had hitherto been unintelligible. Two parallel passages—Pyr. 113 (114) and 614 b, c (d)—are now shown to confirm this discovery. The "hard Eye of Horus" seems to be the club with which the king was to perform the symbolic act of shattering the pots, which was to terrorize the enemy.

To the above contribution Sethe appends two tomb records of the ceremony of breaking the red pots. In the light of the Pyramid Texts he shows that breaking the pots after the ceremony of offerings was intended to show enemies what their fate would be if they attempted hostilities to the dead.

L. B. E.

Bulletin of the Museum of the Fine Arts, Boston. Oct. 1929.

Reisner, G.—*Ancient Egyptian Forts at Semna and Uronarti.* There are eight of these forts from Semna to Buhen, the names of which are on a papyrus from the Ramesseum. Though noticed by travellers, none had been excavated. Dr. Reisner did Semna East, then Lt. Comm. Wheeler did Semna West, and next Uronarti. There has long been a difficulty about the high Nile records of the xiith–xiiith dynasties at Semna, as they are twenty-five feet above the

[1] (Reference given under Albrecht's article.)

present high Nile. An examination of the whole breadth of the channel shows that the breaking down of the western side, by undermining below, has made a much lower barrier; before that collapse the Nile was ponded back and stood much higher, so that it flowed through the narrows up to the levels of the records. The purpose of a record up here is supposed to be for watching the river, to regulate the time for passage of the cargo boats.

The brickwork of the forts was stabilized by building in beams; the combination of brick and timber would best prevent undermining, as the logs lie both parallel and across the walls. The water supply was protected by covered sunk gangways extending down to low Nile level. The inscriptions on the rocks have been copied, 141 in all, many of them not recorded before. The occupation in the xviiith dynasty left some remains, including two bronze menats like that in *Kahun* x, 77 but with a head of Isis in place of Sekhmet.

Palestine Exploration Fund, Quarterly Statement, Oct. 1929.

Grant, E.—*Haverford College excavations at Beth Shemesh 1928.* The P.E.F. had worked here before the War, but had the misfortune to get on a Byzantine Convent instead of early remains. The present work was at the opposite side of the Tell. The first part was on ground outside, in order to clear space for a dump; the soil was about 14 feet deep, and reached down to a cemetery. Deep shafts descending to a cave had been filled up with burials of different ages. Hyksos cylindrical oil flasks, Egyptian alabaster and Cypriote vases of mid xviiith dynasty, Philistine bowls of rather later date, all came out from successive burials and are figured here. Scarabs were found, but are not illustrated here. In the town an earlier burial cave was found under the floor of a house and stretching under the city wall, apparently early Hyksos by the account.

Crowfoot, J. W.—*Discovery of a Synagogue at Jerash.* During the clearance of the early churches there was found, beneath one, a synagogue pavement. The Hebrew inscription in the mosaic named the benefactors, but no date is stated; it must have been before 530 A.D. the date of the superimposed church.

Garrod, D.—*Excavations in the Mugharet-el-Wad near Athlit.* This cave promises to give a stratified series of deposits. A microlith group was found with skeletons,—four adult, six children. Under that a Mousterian group which extended over all the chamber. In the microlith group was found a pebble roughly carved as a human head. In the inner chamber were strata, of Bronze Age to recent 60 C.M., Microlithic 10 C.M., Upper Palaeolithic III 70 C.M., Middle Aurignacian 80 C.M., Upper Palaeolithic I 40 C.M., Mousterian, depth unknown.

Comptes Rendus. 1929, Jan.–March.

Vallois, R.—*Temple Délien d'Arsinoé Philadelphe.* Oenochoes are found, bearing a figure pouring libation on an altar, and the name of an Egyptian queen, from Arsinoe Philadelphos to Berenike II. Athenaeus states that Ptolemy made portraits of Arsinoe. The various offerings in the temple are recorded in the inventories of 156–146 B.C.

April–June.

The excavations of Herr Sellin at Shechem have discovered a rampart guarding two palaces, with large gateways, and a temple. The plan recalls Hittite work at Carchemish and Zinjerli. The date is about 1900–1200 B.C.; over that is an Israelite stratum of 1200–600 B.C. and Hellenistic houses of 300–50 B.C.

p. 90. The work at Byblos in the spring of 1928 is considered to show that the temple which is represented on a coin of Macrinus is not that now known, but was a purely Roman temple. Near the early temple is a grotto which was doubtless the primitive sanctuary.

The Oriental Institute of the University of Chicago.

1. A "general circular No. 2" has appeared, giving an account of the various works due to the enterprise of Prof. Breasted. The Oriental Institute, like the British Museum, has been profiting by the leakage from the French work in Syria, probably from Byblos. A fine pectoral of Amenemhat III and "other fine examples of the goldsmith's art" are now in Chicago. The gifts of American millionaires result in the great library and institute for students at Luxor, the vast clearance of Megiddo in Palestine, the prehistoric survey in Egypt and western Asia, a Mesopotamian, and a Hittite expedition. When we see English millionaires leaving half their wealth to be seized by the Treasury, one regrets their blindness in not using it for researches during their lifetime.

The paintings of the 1st century at Dura, unique in the history of art, have now been destroyed by the Arabs, and only survive in the American publication. The Prehistoric Survey has been at work up the Nile, Mr. Sandford continuing the research which he began for our British School in Egypt. At Thebes the sculptures of the only complete temple, that of Rameses III at Medinet Habu, are being copied by drawing over a photographic basis. The publication of this is expected to fill six volumes. The plan of the palace of Rameses III, adjoining the temple, has been cleared. Another enterprise is the copying of all the early religious texts from wooden coffins.

The Megiddo expedition has happily passed into the direction of Mr. Guy, formerly of the Palestine Museum, who is conscientiously keeping his large staff on preparing publication of what has been already done, before excavating further. The deplorable lack of publication of American work will at least be redeemed at this most important site. Nearly half of it is bared down to the level of Solomon's great stables; all the history of the Canaanite civilisation will be the work of the next generation. The Hittite expedition is working out a great *tell* which provides a series of the successive periods, and will thus give a foundation for Hittite archaeology.

The Central Institute at Chicago is undertaking a complete Assyrian dictionary, and also preparing material for a critical Syriac version of the Old Testament, as being a valuable check on the transmission of the Hebrew. We can but rejoice to see so much needful work being so fully carried on; but what of England? The British School in Jerusalem is denuded of its government support of £500 a year, not a tenth of what it should have, and can scarcely survive; our own British School of Egyptian Archaeology must reduce its output in future if the bare expenses of its workers are not provided.

2. Explorations in Hittite Asia Minor. By. H. H. von der Osten. 104 pp. 1927. The author during a summer searched over the heart of the Hittite Empire with a motor car. This was done for seeking Hittite settlements, which are dated by the fragments of pottery on the surface. In the town mounds there are usually six or seven periods, superposed, dating from before 2000 B.C. The principal guides to sites were the various names of ruins. An Egyptian statuette of a Middle Kingdom vezier was found. The region inland from Amisus (Samsun) was fairly covered, and a hundred photographs are given, mostly of sites and remains. Everywhere the Turkish authorities were helpful, and "there are few places in the world where one can travel as safely as in Anatolia."

3. First report of the Prehistoric Survey Expedition. By K. S. Sandford and W. J. Arkell. 52 pp. 1928. Dr. Sandford's work for the British School had brought to light the various high level terraces of the Nile; at 100 feet over the present river lie the Chellean implements, at 50 feet the Acheulian, at 30 down to 10 feet the Mousterian, curiously like the levels of such flint work in the Thames valley. After this discovery for our School Dr. Sandford was engaged by the Chicago Institute to continue prehistoric researches.

The filling up of the valleys at Thebes to 300 feet above the river is described as evidence of the extent of the Nile estuary at that level, as previously figured in *Ancient Egypt* 1915, pp. 129, 131. It is interesting to see fully accepted the parallelism of the European and the Egyptian series of flint types, which was looked on as a rash assumption ten years ago. Our latest work has produced types in South Palestine absolutely similar to those in Norfolk.

The report of Chicago work is occupied with the difficulties and accidents of driving two cars from Cairo to Aswan, and back to Qeneh and the Red Sea, ending up at Thebes. The important fact of finding worked flint flakes in gravels on the Red Sea coast is stated; but all other results appear to be reserved from the public.

4. The Excavation of Armageddon. By Clarence S. Fisher. 78 pp. 1929. This great enterprise of the clearance of the site of Megiddo will probably occupy thirty or forty years. It has been begun on a large scale, and the volumes of results now in preparation will deal with about a sixth of the site during the ages from 900 to 300 B.C.

The first stage was the clearance of part of the cemetery area at the foot of the mound, in order to provide ground for dumping the earth removed from the mound. In the course of this some cave tombs were found, in one which were twenty-eight scarabs of late Hyksos age. One third of them are identical with types found at Beth-pelet; they are rather diverse in period, which may be expected, as the cave was over thirty feet across (now entirely collapsed), and it was doubtless used during a long period and contained many graves. Another tomb contained ledge-handle jars of the earlier period.

This part of the cemetery being cleared, the earth removed from the hill could be shot down on to it, and a large dump heap is being formed. Eventually the whole depth of ruins on the hill will have to be spread out around it, down to the level of the natural top of the hill. The area now cleared is about a fifth of the hill top, or a seventh of the area lower down, and perhaps a quarter of the depth has been removed. The cleared area is bare down to

the great stables of Solomon. These are buildings, each with a broad paved gangway down the middle, where chariots could be stacked. On either side are a dozen stone pillars for tethering horses which stood outside of the gangway; and between the pillars are stone troughs all along, for feeding the horses. The great interest of the place will appear when the levels of the flourishing age of 1500 B.C. are opened.

5. Nelson, H. H. Medinet Habu 1924–8. } This is an account of the systematic
Hoelscher, W. Architectural Survey. } copying of the great sculptures on the temple. Photographs are taken, then enlarged as blue prints; these prints are then compared with the sculpture and pencilled. The outlines are drawn in ink, the paper is bleached, and blue prints are made from the ink drawing. These can then be checked over in detail by the epigraphers at the wall. When revision is ended there is as complete a copy as can now be obtained. Dr. Nelson, the chief, has eleven assistants beside native boys. In addition there is a survey department of Prof. Hoelscher and two assistants, so that fifteen skilled workers are on the site. Research has grown since the days at "Medum" where one worker had to fulfil all details of facsimile copying and excavating, but only America will afford such staffs. The great Rosenwald library at Thebes is an invaluable aid to workers there.

An outline is given here of the historical crisis in the Mediterranean at the time of Ramessu III. The general account of the walls and sculptures describes the presence of painting on the sheltered parts [there were traces in 1887 on the captives at the front], which had supplied much detail that is now lost on the outer walls. The frequent changes by artists after the carving was done, are now all revealed by the plaster dropping away, in fact the deleted version will have to be separated from the final version.

The survey of the adjacent ground has cleared up the plans of two successive palaces on the south side of the temple; the later one was spaced more widely, and was loftier, within the same outer walls. It also had external entrances east and west, beside the old entrances from the temple court.

Mémoires Soc. Roy. Antiquaires du Nord. Copenhagen, 1928.

Nielsen, Niels.—*Production de Fer en Islande dans les temps anciens.* A long article describing the primitive production of iron should be mentioned as reflecting on early Oriental iron. Forty-six factories have been recorded or found in Iceland, nearly all on the north and west, where limonite (hydrous haematite) is to be obtained. The fuel was mostly charcoal from brushwood of birch; such is now made by burning in pits. The smelting was done in open pits or in pots. A tuyere of iron was found, 11 inches long, $2\frac{1}{2}$ wide tapering to 0·6 inch; it was made by rolling up a sheet of iron about $\frac{1}{16}$ inch thick. [It was probably the nozzle of a forge bellows.]

The pit was about 18 inches cube, lined with rough stones, mortared with clay, having a cobble paving around it. At the bottom lay 3 inches of birch charcoal, and over that 6 inches of slag and charcoal. There was no trace of a blast hole. Whether the charcoal was made apart, or carbonized in the pit is not known. This pit production is similar to the method in Palestine of 1150 B.C. (*Gerar*, p. 14, vi), but there the furnace was 66×36 inches, and had an opening near the base facing the west wind. It would thus be much more

effective than the Iceland pit, as well as holding about twenty times as much, and so keeping its heat better. The pot, or flat crucible, was 4 or 5 inches wide and $1\frac{1}{2}$ deep. Similar pots were used in Jutland, and therefore, no doubt, by Jutes in England. The scale of working was considerable, many piles of slag amounting to 500 tons. The reduced iron was forged to beat out the slag entangled in it; a lump found was $3 \times 2 \times 0{\cdot}4$ inches. Both iron and stone hammers were used. A square anvil of iron was 8 inches high, with a face 12×7 inches. The pit furnace is the earlier type and one generally used in the north down to 1000 A.D. A large quantity of iron was needed for the weapons, chain-mail, and nails for building houses and ships.

Fornvännen. 1929, 3 (Stockholm).

Lennart von Post.—*Pollenanalytisk undersökning.* An important method of research has been used in excavations at Höganäs in Sweden, 30 miles N. of Copenhagen. Throughout 8 feet of deposits the sand and earth was taken in 4-inch layers, in each of which the pollen grains were counted and discriminated by the microscope. Thus the waxing and waning of each kind of tree has been traced during a long period. The changes in the growth of birch, elm, oak, alder, hazel, willow, pine, pitch pine, and lime have been thus measured, and the total fertility of each age is shown by the total amount of pollen, sometimes more than double of what it is at other times.

NOTES AND NEWS.

British School of Egyptian Archaeology.

The coming season of excavation at Beth-pelet will, it is hoped, finish the search of the Hyksos cemetery, which is so important for the history of Egypt. The large building of the age of Solomon which was touched last year will be cleared. The part of the town by the fort of the early xviiith dynasty found in 1928 will be cleared to the base. Also the west side of the fortification fosse, where the large tomb of the xviiith dynasty was found, will be examined rather further; but the depth of twenty feet of sand is so costly to remove that not much can be done there. The neolithic and palaeolithic discoveries will be carried further.

The staff will be Mr. Starkey and Mr. Harding who have worked each year in our Palestine enterprise, also Mr. Colt from last year. Mr. Myers has been prevented from going, by his health; when recovered, he will be due to work for the Egypt Exploration Society. His place for searching the important neolithic sites will be taken by Mr. Macdonald who has had geological experience, as well as working at Richboro'. The Director will be occupied with writing at Rome, and go over to Palestine if required. Lady Petrie has been actively engaged in improving the finances of the School, and will be thus occupied this winter. Without incessant exertion to obtain support in England, the work in Egypt over the Border would be greatly reduced. Fresh contributors are urgently needed.

The neolithic settlements around Beth-pelet are of great value, as they cover various degrees of civilisation, and are in one stage linked with the oldest, Tasian, stage of prehistoric Egypt, and at the end join in to the flint work of the Israelites during the age of Judges. Overlapping thus both the bronze and earliest iron ages the series of settlements promises to give a continuous history over a long period.

Enquiry has been made by Mr. Lucas about a sulphur mine near our work. It is in the marl, above the Wady M'shebba, six miles south of Gaza, and is at present under European management.

Mr. Myers will be occupied on the cemetery of the sacred bulls at Erment. Dr. Frankfort is now engaged for the American excavations in Iraq.

The further raising of the Aswan dam, which has been decided, will flood Nubia to a wider extent. This has led the Egyptian government to extend the former survey of antiquities in Nubia, before the Nile covers more ground. For this survey Mr. Emery has been put in charge, and is to be assisted by Mr. Kirwen, who has for some years studied at University College, and worked with Mr. Brunton.

Professor and Mrs. Griffith are engaged in studying the Demotic graffiti on the temples at Philae.

Professor Newberry is now occupied in teaching Egyptian Archaeology in the University of Cairo.

Mr. Firth continues the great task of clearing the works of Zeser at Saqqarah. The very serious question of preservation will arise, for re-burial of monuments is often the only way to preserve stone from weathering, or the future destruction by ignorance.

Dr. Junker is now appointed Director of the German Institute in Cairo; his meticulous reports on the early sites which he has excavated are a guarantee that good results may be expected from his management.

The fluctuations of Arabic writing have been well overcome in linotype, which severely limits the number of ligatures; every letter is formed to end on a uniform base level, and the junctions are imperceptible. The sizes vary between 7 letters or 18 letters to the inch. The Mergenthaler Linotype Co. of Brooklyn N.Y. have issued a full description.